UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,966	10/29/2003	Michael Stanley DeCourcy	A01465	7997
21898 ROHM AND I	7590 04/19/2007 HAAS COMPANY		EXAMINER	
PATENT DEP	ARTMENT		JOHNSON, EDWARD M	
100 INDEPENDENCE MALL WEST PHILADELPHIA, PA 19106-2399			ART UNIT	PAPER NUMBER
	•		1754	
SHORTENED STATUTOR	RY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE	
3 MC	PATRIC	04/19/2007	DAD	ED

# Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

		Application No.	Applicant(s)			
Office Action Summary		10/695,966	DECOURCY ET AL.			
		Examiner	Art Unit			
		Edward M. Johnson	1754			
	The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1) 又	Responsive to communication(s) filed on 29 Ja	nuary 2007.				
•	This action is <b>FINAL</b> . 2b) ☐ This action is non-final.					
, —	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
٠,٠	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims						
4)⊠ Claim(s) <i>1-5 and 10-16</i> is/are pending in the application.						
<i>,</i> —	4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-5 and 10-16</u> is/are rejected.						
7)	Claim(s) is/are objected to.		•			
8)	Claim(s) are subject to restriction and/or	r-election requirement.				
Applicati	on Papers					
9)□	The specification is objected to by the Examine	r.				
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.						
,	Applicant may not request that any objection to the					
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority ι	ınder 35 U.S.C. § 119		•			
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:						
	1. Certified copies of the priority documents have been received.					
<ul> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage</li> </ul>						
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachmen	t(s)					
_	te of References Cited (PTO-892)	4) Interview Summary	(PTO-413)			
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date 3) Information Disclosure Statement(s) (PTO/SR/08) 5) Notice of Informal Patent Application						
· —	mation Disclosure Statement(s) (PTO/SB/08) er No(s)/Mail Date	6) Other:	Armit's Abunantan			

Application/Control Number: 10/695,966 Page 2

Art Unit: 1754

#### DETAILED ACTION

### Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1-5 and 10-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Cochran et al. US 6,499,412 in view of Beer '715.

Regarding claim 1, Cochran '412 discloses a method for treating waste streams comprising feeding the stream comprising NOx and CO to a thermal oxidizer or combustor and combusting at a location 18, (see column 4, lines 34-56 and Fig. 1), wherein a stream comprising nitrogen, oxygen, NOx, carbon dioxide, CO, VOCs, and water is analyzed at location 20 downstream from 18 (Fig. 1), and wherein the waste may be liquid waste from acrylonitrile, acrylic acid, or methacrylic acid production (column 1, lines 15-35).

Cochran fails to disclose injecting at a downstream location of a multi-zone thermal oxidizer.

Application/Control Number: 10/695,966

Art Unit: 1754

Beer discloses injecting at a downstream location (claim 7) discloses a method for reduction of NOx emissions comprising introducing into a combustor and combusting (abstract and claim 1), wherein the combustor comprises two zones and coal waste gas is introduced at a downstream location (claim 7).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the downstream injection of Beer in the thermal oxidation waste stream treatment method of Cochran because Beer discloses such injection in a process for treatment of reduction of NOx emissions comprising introducing into a combustor and combusting (abstract and claim 1) to mix with hydrocarbon fragments of fuel, which would motivate the ordinarily skilled artisan to perform such injection so as to achieve such mixing, as disclosed.

Regarding claims 2, 7, and 11-16, apparatus limitations are not given undue weight in method claims. However, Beer '715 discloses a fuel-rich and fuel-lean combustion zone wherein the ratio of fuel to flue gas is 0.1-0.5 (see column 5, lines 10-16 and claim 7).

Regarding claims 3 and 8, Cochran '412 discloses the waste may be liquid waste from acrylonitrile, acrylic acid, or methacrylic acid production (column 1, lines 15-35).

Application/Control Number: 10/695,966

Art Unit: 1754

Regarding claims 4 and 9, Beer '715 discloses combining the waste with a liquid fuel stream (see claim 1 and column 5, lines 8-9).

Regarding claims 5, 10 Beer '715 discloses hydrogen cyanide is produced and reacted (see column 4).

## Response to Arguments

3. Applicant's arguments filed 1/29/07 have been fully considered but they are not persuasive.

It is argued that the disclosure provided by Cochran et al... and <u>reactive</u> waste components to a destruction apparatus. This is not persuasive because combusting the waste is disclosed, which is a reaction. Thus, the waste is reactive.

It is argued that Beer '715 fails to remedy the aforesaid deficiencies... reactive waste components. This is not persuasive for the reasons above.

#### Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS**ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this

Application/Control Number: 10/695,966

Art Unit: 1754

action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval

(PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

Application/Control Number: 10/695,966 Page 6

Art Unit: 1754

information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Edward M. Johnson Primary Examiner Art Unit 1754

W M. W.

EMJ